



Invasive Species

funded by the Great Lakes Restoration Initiative

Progress toward restoring the Great Lakes has been significantly undermined by the effects of non-native aquatic, wetland, and terrestrial invasive species. More than 180 nonindigenous aquatic species (NAS) now exist in the Great Lakes. The most invasive of these - including the well known zebra mussel - reproduce and spread, ultimately degrading habitat, out-competing native species, and short-circuiting food webs. Without forecasting the arrival and bioeconomic impact of nonindigenous species, natural resource managers cannot cost effectively respond to current invasions or prevent future invasions.

GLANSIS: Improving Information Access

The Great Lakes Aquatic Non-Indigenous Species Information System (GLANSIS) provides extensive invasive species collection records for the Great Lakes Region. Thanks to GLRI funding, NOAA has expanded GLANSIS to better serve the needs of natural resource managers seeking to halt the spread of non-indigenous species. The expanded GLANSIS includes profiles for range expansion species (native to one part of the basin, but invading other parts) and those forecasted at the highest risk for invasion, as well as risk assessment information and public fact sheets supporting citizen monitoring.

Risk Assessment: Asian Carp

No discussion of Great Lakes invasive species can ignore Asian Carp, which could pose a significant risk if they become established in the Great Lakes ecosystem. Working with experts around the globe, NOAA is developing ecological forecast models that will enhance policies, protocols, and barriers to prevent bighead and silver carp from entering the Great Lakes.



Asian Carp. Credit: Great Lakes Fishery Commission.



Forecasting the Bioeconomic impacts of Aquatic Invasive Species (AIS)

This collaborative project combines scientific, economic, risk analysis, and management expertise to provide the first-ever bioeconomic forecasts of the impact that new aquatic invasive species (AIS) will have on the Great Lakes. This information benefits resource managers, scientists, and policymakers, and it directly supports efforts to control potentially devastating species *before* they get established.

Asian Carp Education and Outreach

This project is using the established outreach and extension programs of the eight Great Lakes Sea Grant programs to respond to opportunities and requests for education and outreach on regional control efforts for Asian carp.

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www.regions.noaa.gov/great-lakes/index.php/great_lakes-restoration-initiative